Food Ordering Application Based on Android

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Abstract

The purpose of this study is to measure the effectiveness of ordering food and drinks using an android-based application and manually. The method used in this study was a descriptive approach, through observation and design of an Android-based app to order food and drinks. In measuring the results of effectiveness, consumers will be given the option to use the system manually and use the app. The results of this study indicate that many consumers prefer to use app compared to manual orders. Using the app provides convenience, for customers to see and order food and drinks only from the desk, without the need to come in person. Apart from providing comfort to consumers, it also provides convenience to restaurant owners to manage each menu that is served..

Keywords-food and drinks, restaurant, android-based application;

1. INTRODUCTION

The ordering system at a food restaurant is a manual process involving servants, pens, and paper. Waiters must record orders from customers, take these orders to the kitchen, update them in records, and make bills again. This system is simple but may involve the human error in recording orders to overcome this limitation in manual systems. Several systems were developed later, such as PDA (Personal Digital Assistant-based systems and multi-touchable restaurant management systems to automate the food ordering process [1]. Revolution in this world people are crazy about the latest technology and automate their routine tasks. Considering this fact by relying on technology, automation of conventional food ordering processes is aimed at increasing efficiency and reducing errors in conventional food ordering systems [2].

In the era of technology like today, there have been many computer devices and their applications to help and facilitate various activities. The first computer available in the form of mobile is easy. For example, such as Tablet PCs and Smartphone are now available in various languages, education, and business. One of the most common platforms on the market is Android [3]. It changes the way people access and work with information because mobile devices are now cheaper, smaller, more connected, and better [4]. Shweta and co-authors, was using android-based application utilization for food with a heavy point on consumer feedback. This application makes it easy and provides comfort for officers in delivering the food [5]. Samsudin utilizing wireless technology on the order of food with consumer feedback, the result of such technology provided convenience in the restaurant owners to manage and update any food menu. Main and co-authors, implemented integrated food ordering applications on hotel rooms using PDA technology. As a result, the application of this food reservation application provided convenience, save time, and provide the hotel on appeal. Everyone is interested in new technology because technology is increasing day by day. Therefore, to utilize technology and attract customers in restaurants to meet their requirements, we need this type of application where we can order food online, which reduces busy paperwork and the speed of increasing food delivery. In the restaurant, the previous staff member serving at the table came to our table and wrote on some paper. This involves a waste of time and waste of paper. Therefore, if we develop the application where we can order food from a seat at the table, anywhere, anytime. Because it reduces human effort, costs and saves time. Most tablets are compatible with Android. Because Android is open-source, you do not need to buy additional software. The tablet has all the features of a PDA that provides the ability to work in full programs. The small display area on the PDA can thus make this food ordering system implemented using a tablet with an Android operating system. Reading long information makes us tedious and tired, even reducing the quality of text or images, while the size of a larger tablet is more comfortable than a PDA for users who are accustomed to working on a laptop or desktop PC. Overall, users have a bad experience seeing all kinds of information on PDAs. The influence of investment from networks, telecommunications, and other technologies, new economic characteristics are different from the old economy or the economy before the internet in various ways. In addition, to be more sophisticated and more dynamic, the new economy relies heavily on the use of information to gain a competitive advantage. That way, food-ordering system is implemented using a Tablet with Android operating system.

Previous research has been extensively utilizing technology to good food technology-based wireless-based android applications. This study aims to compare the effectiveness and level of satisfaction of consumers against food and beverage reservations through applications and through the system manual. So, be measured how effective use of technology on food

compared with booking reservations manually.

2. Method

Stages of research methodology used the descriptive method of approach. These stages include in data collection, analysis of the needs of the application, the design of the applications, and the used of the application. At the stage of data collection, it was done through the stages of the interview with the owner of the cafe. The Cafe used to research was the Time TV Cafe that was located in the city of Bandung. Stages of the interviews was done with the owner of the cafe to collect data need either an application or software development needs. Application that was designed on this research was a great mobile application for the owner of a cafe in the ease of booking in the cafe.



3. Results and Discussion

The system architecture of AOS-RTF depicted in Figure 1 covers the three main areas of restaurant: the Serving area, the Kitchen, and Restaurant-Owners desk (Cashier table) [5]. This research designing application system based on Android for Time Tv Coffee, the owner's android is used which is stored in a table to order food that will be integrated with the kitchen and cashier section for payment. To run this application to make it easier for parts per section to carry out tasks, from customers, kitchen parts, cashiers, there is a keyboard system application that is used. Ordering can be done at the restaurant table (android application), then kitchen parts (kitchen tablets) and parts the cashier gets the transaction data (Figure 1).

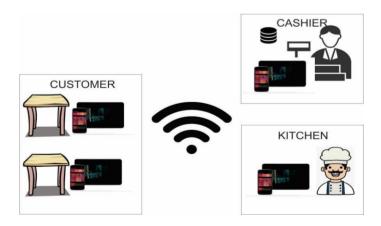


Figure 1. The Food Order Application Architecture System In Figure 1, it explains more or less the description of the main menu of the Smartphone application that will be stored on the restaurant table. There are 4 menus available in the Android application at each restaurant table that we can choose, top recommend there is a collection of food and drinks that sell well in the restaurant (Figure 2).

Figure 2. Main Menu

In this picture, there is a collection of foods available on the food menu, which in the picture there is a thumb icon is a recommendation from the restaurant while the star icon is a food that is often purchased by customers (Figure 3).



Figure 3. Main Dishes and Beverages

In Figure 4, it describes the overall food; while there is a menu where you can tell a little about the food or drinks that will be in the restaurant, there is also an order menu for consumers.

Figure 4. Food Details

Order Food is a menu where we order food (Figure 4), there are some text fields, the first is the qty (amount) of food that will be ordered, and additional information for food, after adjusting then tap the order that will be explained in Figure 5.



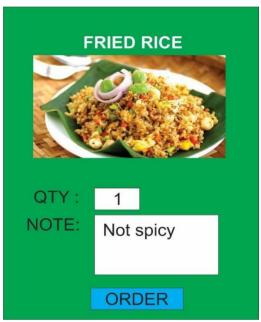


Figure 5. Order Food

ORDER LIST

QTY:1
TABLE:2
NOTE: NOT SPICY

QTY:1
TABLE:2
NOTE:-

Orders that have been ordered by the consumer to the restaurant and will be integrated with the kitchen section, and here are displayed on the table or smartphone in the kitchen, the food menu that has been ordered by the consumer to the restaurant (Figure 6) or the payment section directly to the cashier.

Figure 6. Kitchen Order List

In this picture, it is the end of the system design where, after the consumer orders the food at the cashier, for payment of table 2 after the tap on the table, displays the payment table that has been ordered at the table and looks at the food menu ordered and the total payment that must be paid by consumers. When it is appropriate, tap "Done" will print the sales receipt (Figure 7). The use of Android-based applications, also, to be used for the development of design can assist in ordering food for consumers

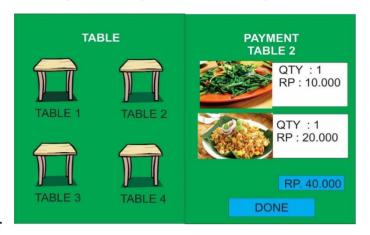


Figure 7. Cashier

4. Conclusion

In this paper, it presents a system for ordering food or automatic drinks in the restaurant. With observations at the Time TV Coffee restaurant, it turns out that this system is comfortable, effective and easy, improving the performance of restaurant staff, will provide quality service and customer satisfaction. The overall conclusion is this is an extraordinary food ordering system for the restaurant sector, created by combining base smartphone technology on Android and Wireless.

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